

1.4 Practice B

Solve the equation for y .

1. $3x - \frac{1}{4}y = -2$

2. $5x + 8y = 6\pi$

3. $4y - 3.2x = 6$

4. $4.5x - 1.5y = 5.4$

5. The formula for the volume of a rectangular prism is $V = lwh$.

a. Solve the formula for w .

b. Use the new formula to find the value of w when $V = 210$ cubic feet, $l = 10$ feet, and $h = 3$ feet.

Solve the equation for the bold variable.

6. $T = hP + 2\mathbf{B}$

7. $C = 1000 + 80\mathbf{x}$

8. $S = \pi r^2 + 2\pi r\mathbf{h}$

9. $A = \frac{1}{2}\mathbf{Pa}$

10. The formula $F = \frac{9}{5}C + 32$ converts temperatures from Celsius C to Fahrenheit F .

- a. Solve the formula for C .
- b. The boiling point of water is 212°F . What is the temperature in Celsius?
- c. If a house thermostat is set at 80°F , what is the setting in Celsius? Round your answer to the nearest tenth.

11. The formula for the area of a sector of a circle is $A = \frac{m}{360}\pi r^2$, given the measure m of the angle and the radius r of the circle.

- a. Solve the formula for m .
- b. Find the measure of the angle when the area of the sector is 5 square centimeters and the radius is 2 centimeters. Round your answer to the nearest tenth.
- c. If the area of the sector in part (b) is greater than 5 square centimeters, is the measure of the angle *greater than* or *less than* the answer to part (b)? Explain.